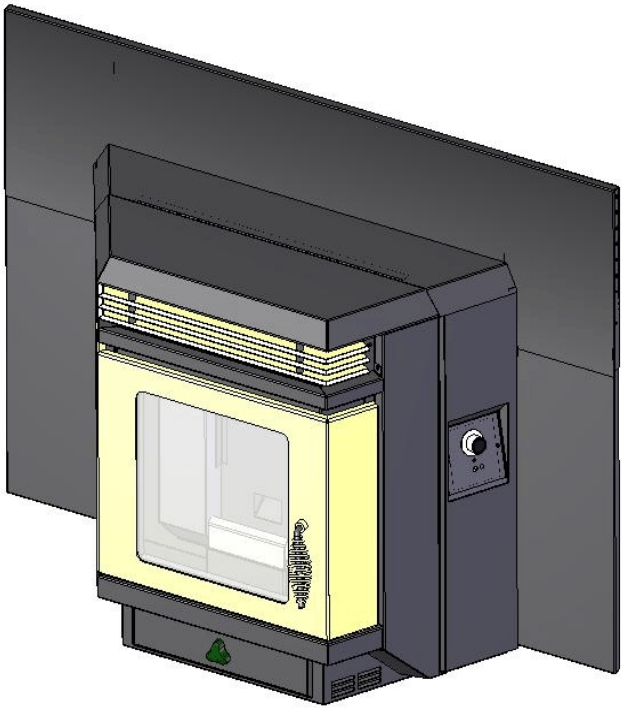
EasyFire

EF4001B AutoLite Pellet Stove Insert Installation & Operating Instructions

Please read this entire manual before installation. Save these instructions.



PLEASE READ THIS ENTIRE MANUAL BEFORE INSTALLATION AND USE OF THIS PELLET FUEL-BURNING ROOM HEATER. FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH.

SAFETY NOTICE

- CAUTION: HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
- IF THIS HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT.
- CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.
- FAILURE TO COMPLY WITH OWNERS' MANUAL INSTRUCTIONS WILL VOID YOUR WARRANTY!

NOTE: This heater should <u>not</u> be installed in a bedroom or bathroom.

GENERAL INFORMATION

Installation and repair should be done by a qualified service person. The heater should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to fuel quality, excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burn pot and circulating air passageways of the heater be kept clean.

The EASYFIRE Pellet Insert has been designed and approved for burning **wood pellet fuel only**. Burning solid fuel in other forms is not permitted and will void all warranties.

This unit has been approved for use with a **Ø 3" Type L Pellet Vent System or Stainless Chimney Liner** (Ø 4" on runs 10 feet and above).

NEVER use gasoline, gasoline-type lantern fuels, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the heater while it is in use.

Ashes must be disposed of in a metal container with a tight fitting lid and placed on a noncombustible floor or ground, well away from all fuels, pending final disposal.

<u>NOTE :</u> During the first few burns the high temperature paint and sealant used in manufacture will emit some odor and smoke. Open doors and windows to the outside for proper ventilation during the first burn cycle and curing of the paint.

This heater, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the **National Electrical Code, ANSI/NFPA 70-2006**.

<u>INSTALLER: PLEASE LEAVE THIS MANUAL WITH THE OWNER!!</u>

Sierra Products, Inc.
5061 Brooks St., Ste B
Montclair, CA 91763
(909) 399-3355

Listed by OMNI-Test Laboratories, Inc.
Report No. 256-S-01-4

Provide adequate clearances around air openings into the combustion chamber and adequate accessibility clearance for servicing and proper operation. Never obstruct the front opening of the heater.

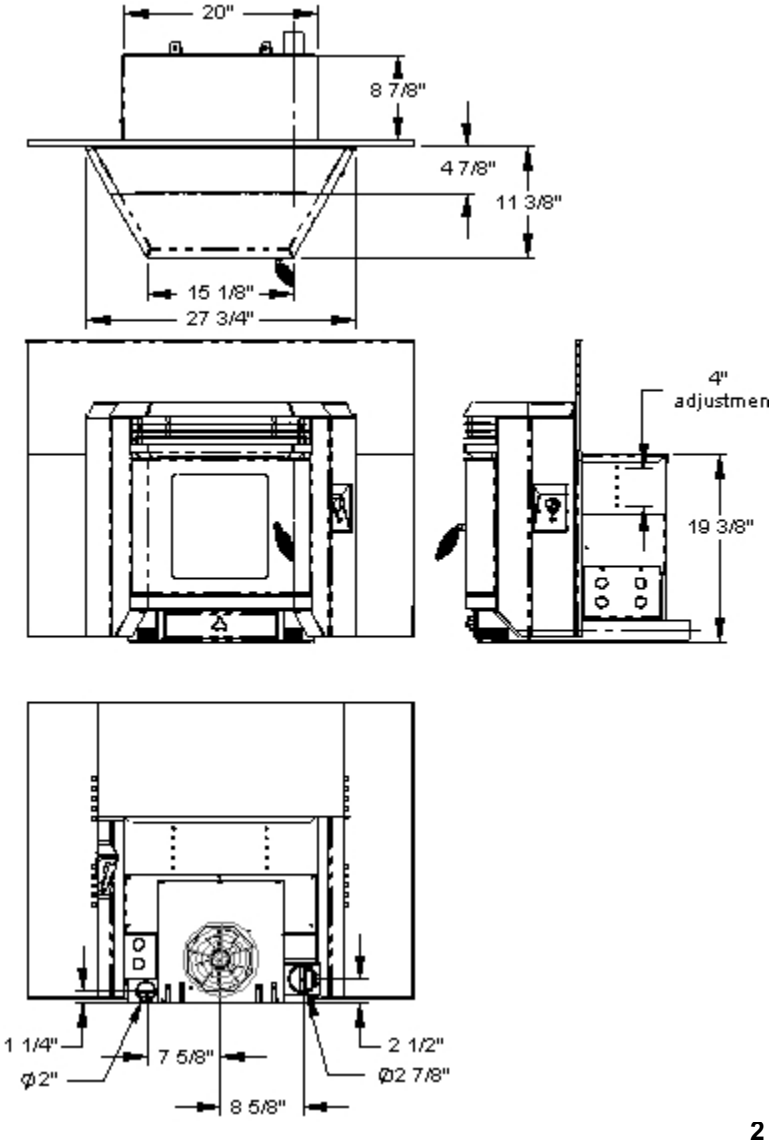
The heater may be installed as a free-standing unit mounted on a noncombustible protective floor pad or hearth, or it may be mounted into an existing U. L. approved wood stove chimney using a Hearth Extension (p/n 11099). Non-combustible floor protection is required and must be used when placing the heater on any combustible material.

The pellet heater must be operated with a power source and will not operate using natural draft. If there is a power failure the heater will shut down. If the 12 volt back-up system is installed, the heater will automatically switch to 12 volt power. An **optional** backup battery is available for the unit which lasts approximately 48 hrs on high and 72 hrs on low. A bigger battery may be purchased if desired for longer durations.

The EasyFire Pellet Heater has been listed by OMNI-Test Laboratories, Inc. to ASTM, U.L.,and EPA Standards.

CAUTION: Do not connect this unit to a chimney flue serving another appliance.

EF4100 Overall Dimensions



Use only listed Type "L" pellet vent or stainless liner and components for installation. Failure to use listed components will void your warranty. See pipe manufacturer instructions for installation instructions.

OUTSIDE COMBUSTION AIR IS MANDATORY IN MOBILE OR MODULAR HOME INSTALLATIONS. SEE SECTION ON OUTSIDE AIR INSTALLATION.

CAUTION: DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

INSTALLATION INSTRUCTIONS

Check with local building officials for specific code requirements.

A listed, type "L" Pellet Vent Pipe or Stainless Liner is MANDATORY on all installations.

WARNING: Installation of a Mobile Attachment Home Kit P/N 10412 and outside combustion air is mandatory in mobile or modular home installations although it may also be used in all residential applications.

An outside air inlet MUST be provided for combustion and ventilation air. The air inlet must remain unrestricted while unit is in use. Outside air connection is located in the rear of the heater (**Figure 1**).

NOTE: *Vent Pipes' inner diameters may vary. For Vent Pipes Ø3.00" or smaller, use SPI Exhaust Vent Adapter p/n 11076.*

This adapter is used on Selkirk Metalbestos™ and other Ø2.950" I.D. Pellet Vent Pipes.

Use conduit pipe or metal flex pipe and/or fittings to make the air intake hook-up.

Also, the **structural integrity of the mobile home floor, walls and ceiling/roof must be maintained**.

1. Clean and inspect the fireplace and its chimney for any structural defect that may cause any future problems. Secure gas piping that is installed with a cap and verify there are no leaks. Seal ash dump or any other access to the firebox area. Fix the damper in an open position or remove it as required for vent pipe installation.

2. Verify the required hearth and side and clearances to mantels **(fig. 2 & 3)**.

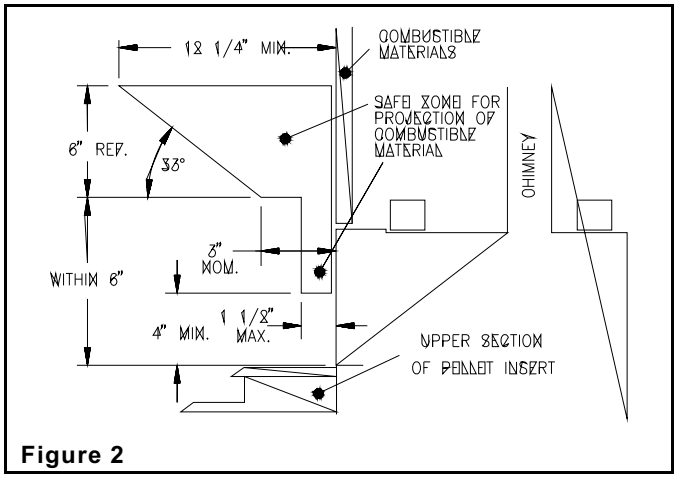


Figure 2

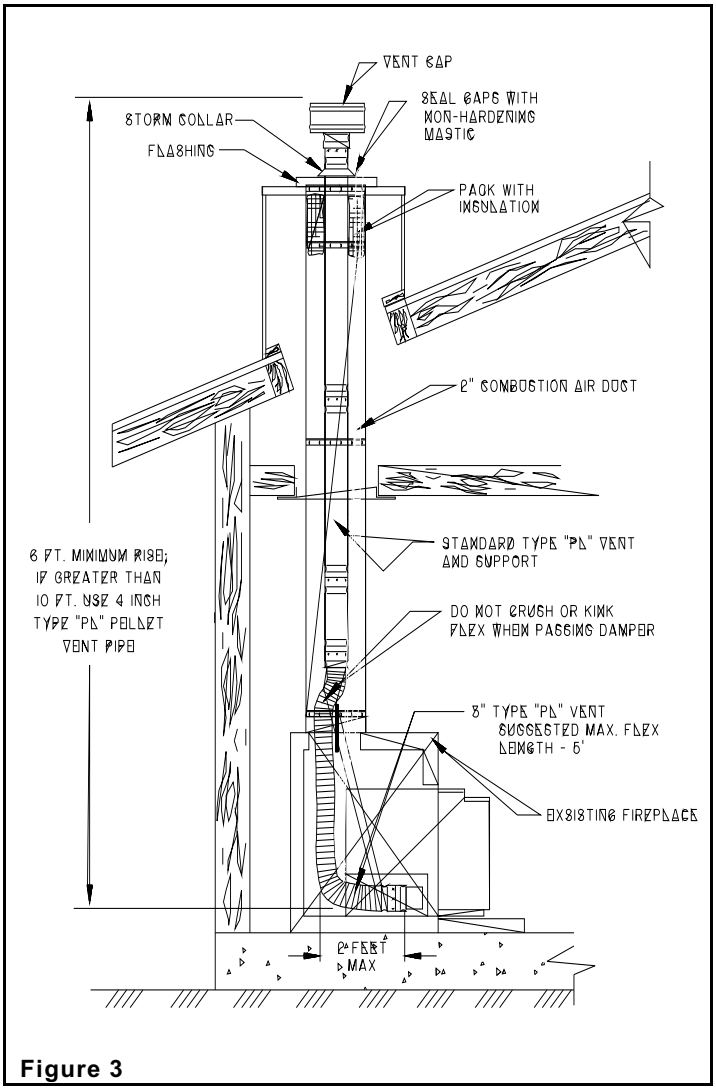

VENT CAP
SEAL CAPS WITH NON-HARDENING MASTIC
STORM COLLAR
FLASHING
PACK WITH INSULATION
6" COMBUSTION AIR DUCT
6 FT. MINIMUM RISE; IF GREATER THAN 10 FT. USE 4 INCH TYPE "PL" PELLET VENT PIPE
STANDARD TYPE "PL" VENT AND SUPPORT
DO NOT CRUSH OR KINK FLEX WHEN PASSING DAMPER
8" TYPE "PL" VENT SUGGESTED MAX. FLEX LENGTH - 5'
EXISTING FIREPLACE
2' FEET MAX

Figure 3

3. If the hearth and fireplace floor are not at the same elevation, leveling legs may be installed on the rear of the unit **(Figure 4)** for distances of up to 1". For larger distances shimming may be used using a non-combustible material. A Hearth Base Support is available from your dealer for installations where the hearth is below the fireplace opening **(Figure 5)**.

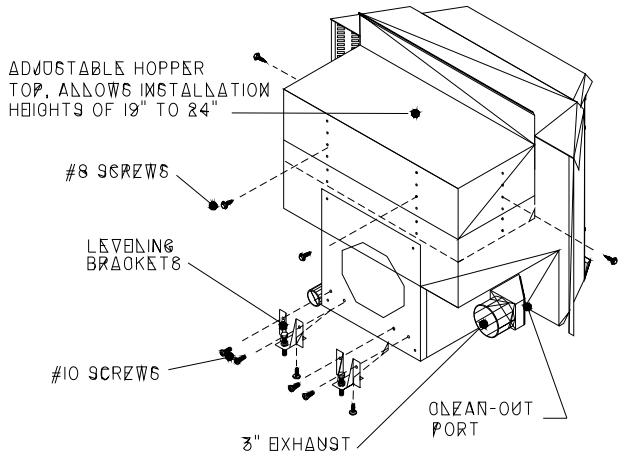


Figure 4

NOTE: THE INSERT WEIGHT IS SUBSTANTIAULLY FRONT HEAVY AND IF NOT FULLY SUPPORTED IT COULD FALL FORWARD.

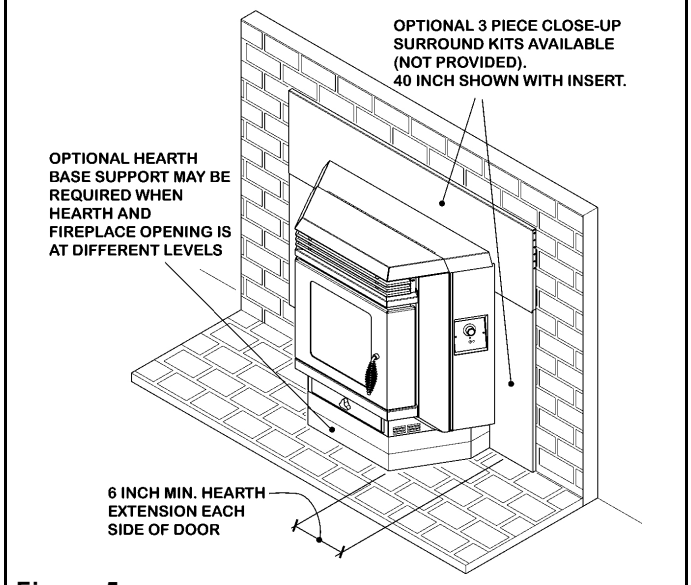

OPTIONAL 3 PIECE CLOSE-UP SURROUND KITS AVAILABLE (NOT PROVIDED). 40 INCH SHOWN WITH INSERT.
OPTIONAL HEARTH BASE SUPPORT MAY BE REQUIRED WHEN HEARTH AND FIREPLACE OPENING IS AT DIFFERENT LEVELS
6 INCH MIN. HEARTH EXTENSION EACH SIDE OF DOOR

Figure 5

4. Install vent system into existing chimney by using 3" flex from left side of hearth, passing damper and continuing to the top of the chimney. If the total vent length is longer than 10 Feet, install Ø4" vent from that point to top of chimney **(Figure 6)**.

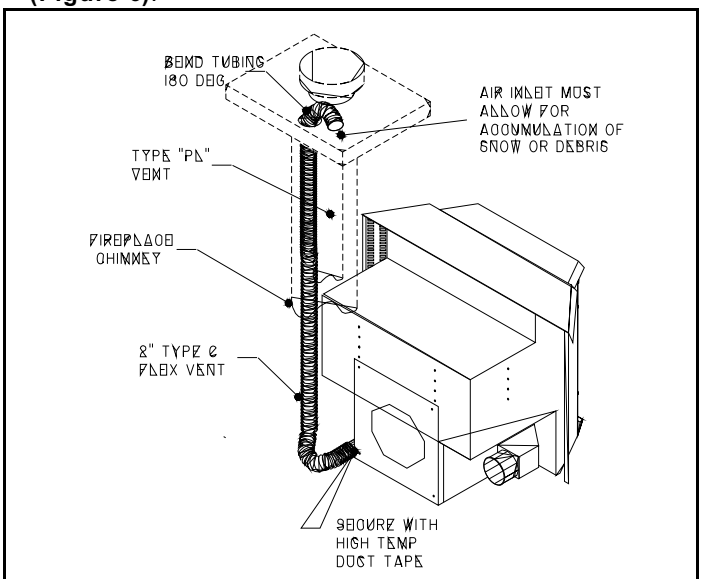

BEND TUBING 180 DEG.
AIR INLET MUST ALLOW FOR ACCUMULATION OF SNOW OR DEBRIS
TYPE "PL" VENT
FIREPLACE CHIMNEY
8" TYPE C FLEX VENT
SECURE WITH HIGH TEMP DUCT TAPE

Figure 6

5. Pack fiberglass insulation around the vent pipe and combustion air duct. Install a flashing cover over chimney. Secure flashing and seal as required. Install listed vent cap and secure.

6. Measure fireplace opening and adjust hopper top to the required level allowing for installation clearance. This is accomplished by removing the four #8 screws on the sides and rear of unit and raising the top by 1" increments until desired height and reinstalling screws **(Figure 4)**.

7. Slide insert into fireplace and center. Level as required, then secure vent to outlet on left side of insert. Connect combustion air duct and secure.

Note - For best insert operation the flexible vent installation should not have any tight bends. Try to achieve a smooth sweep to the vertical rise.

SURROUND INSTALLATION

The surround supplied with the insert is adjustable in height so as to allow for many installation perimeters.

1. After the insert is in position, install left and right surround sides by attaching them to the two side brackets using the four 1/4-20 bolts provided. The retainer nuts on the surround sides may be installed at any vertical position to accommodate the installation.

2. Slide the surround top panel between the hopper top and cover. Push the panel down until the screw holes align with the side legs. Install the (4) #8 screws provided. Install power cord into the receptacle on the right side of the insert. Route cord behind surround leg and out to a ground plus.

AUTOLITE INSTALLATION INSTRUCTIONS

The AutoLite System is factory installed with the only installation requirements being the optional thermostat.

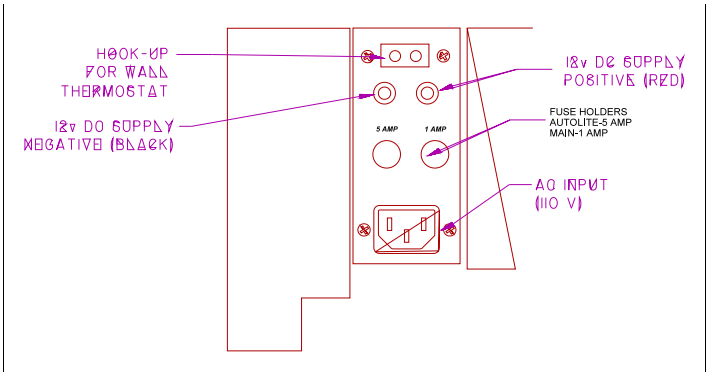


Figure 7 Connection Panel Lower Right Side

Wall Thermostat Installation:

The wall thermostat is designed to automatically regulate the room temperature from the control panel heat setting to the “Off” setting based upon room temperature. Remember to leave the control panel on the "Medium or High" position when utilizing the wall thermostat feature.

The following is a step by step procedure for installing the optional wall thermostat. Note connection terminals on left side of unit at rear (**Figure 7**). Use 18/2 thermostat wire for the installation.

a. Unplug heater from wall outlet and 12VDC power!

b. Remove factory jump wire and hook up thermostat wires to terminals (**Figure 7**).

c. Locate thermostat approximately 10 to 12 feet from heater or in area that requires steady temperature.

d. Run thermostat wires from heater to thermostat along wall or under carpet etc. and hook wires to thermostat terminals. On new construction you can, of course, run wire in the walls before sheet rock or paneling is done.

e. Reconnect AC power.

f. Make sure all wiring is completed before plugging the EASYFIRE Heater back into the wall outlet.

IMPORTANT - Any electrical work performed on the EASYFIRE Heater should be done by qualified personnel.

Remote Control Thermostat Installation:

The remote thermostat is designed to automatically regulate the room temperature from the control panel heat setting to the “Off” setting based upon room temperature and placement of the remote thermostat. Remember to leave the control panel on the "Medium or High" position when utilizing the wall thermostat feature.

The following is a step by step procedure for installing the optional remote thermostat. Note connection terminals on rear of unit (**Figure 7**).

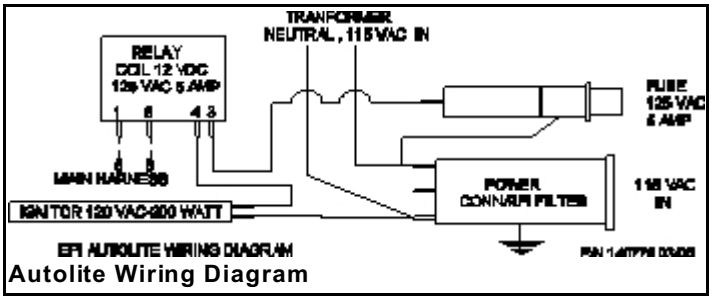
a. Unplug heater from wall outlet and 12VDC power!

b. Mount millivolt style remote receiver box to rear of stove using double-sided tape.

b. Remove factory jump wire and hook up thermostat wires to terminals (**Figure 7**).

d. Reconnect AC power and follow instructions with remote thermostat regarding set up.

IMPORTANT - Any electrical work performed on the EASYFIRE Heater should be done by qualified personnel.



Autolite Wiring Diagram

DOOR HANDLE ASSEMBLY

The door handle and latch must be assembled and adjusted prior to the operation of the stove.

1. Position handle assembly through door and secure with collar by sliding over shaft and tightening with allen wrench provided.

2. Position latch on end of shaft with flat facing allen screw. Depending on gasket, shaft will protrude approx. 1/4" through back of latch collar. Snug allen screw.

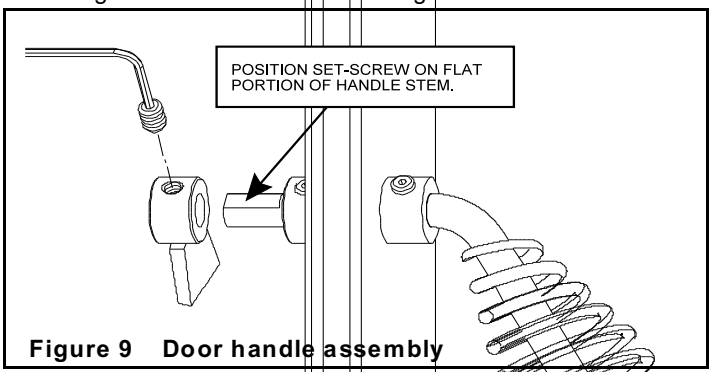


Figure 9 Door handle assembly

3. To adjust door, close and turn handle so latch contacts striker. Door gasket must contact firmly against front face of unit. This can be checked by closing against a piece of paper. Firmly tug on paper, if it moves with solid resistance the door is properly adjusted.

UNIT ELECTRIC CONNECTIONS

Route the power supply cord from lower right side of unit to a grounded three prong 120VAC receptacle. Care should be taken to make sure the fireplace and hearth does not pinch or otherwise damage the cord.

OPTIONAL 12V HOOK-UP & OPERATION

1. The EASYFIRE 12V back up can be purchased as an option and includes the following components:

a. Deep cycle sealed 12V battery.

b. Battery connector cables for hook-up to the heater.

2. In order to hook-up the battery and engage the 12V backup system simply connect red cable to red terminal on the heater **(see Figure 6)** and to positive connector on battery [the terminal marked (+)] and connect the black cable to the black terminal on the heater and to the negative connector on the battery (the terminal marked (-). If you hook up the cables backwards the red LED light above the terminal receptacles will come on. If hooked up properly this LED will glow green.

WARNING - MAKE SURE RED CABLE GOES TO RED TERMINAL (POSITIVE CONNECTOR) AND BLACK CABLE GOES TO BLACK TERMINAL (NEGATIVE CONNECTOR).

3. If you decide to purchase your own 12V back up system we recommend a sealed gel cell battery. Failure to install the proper battery could cause physical harm to you and your property and will also void the heater warranty.

4. When the battery is properly connected and the heater plugged in, the following will happen automatically:

a. The heater will automatically switch to 12V power if there is a power failure, and switch back when power is restored.

b. The battery will be trickle charged as long as the heater is plugged into 110 AC wall outlet. Do not use extension cords. The trickle charge will not recharge a low or dead battery but it will keep a charged battery at maximum performance.

5. If you choose to separate the battery from the heater by lengthening the cables you must make sure that the cable wire used will carry the current to the heater. For example, if the distance is 10 to 20 feet then 12 gauge wire must be used. Check with your local electrical professional to make sure you have used the proper gauge wire/cable.

a. Unplug heater from wall outlet and 12VDC power!

b. Mount millivolt style remote receiver box to rear of stove using double-sided tape.

b. Remove factory jump wire and hook up thermostat wires to terminals (**Figure 7**).

d. Reconnect AC power and follow instructions with remote thermostat regarding set up.

CANADIAN REQUIREMENTS

If this unit is being installed in Canada, the following additional requirements must be meant:

1. A chimney connector shall no pass through and attic or roof space, closet or similar concealed space, or a floor, or ceiling.

2. Where a chimney passage through a wall, or partition of combustible construction is desired, the installation shall conform the CAN/CSA-B365.

3. Maintain an effective vapour barrier at the location where the chimney or other component penetrates to the exterior of the structure by sealing with high temperature silicone.

4. Clearance to combustibles may only be reduced by means approved by the regulatory authority.

5. Store pellet fuels in a dry area away from unit. Do not store fuels within the space heater installation clearances or within the space required for charging and ash removal.

6. Adequate ventilation air is required to operate this heater. During operation the heater draws air for combustion which can be assisted by the installation of outside combustion air inlets. However, certain weather conditions such as icing or use of kitchen exhaust fans may impact and reduce the effectiveness of vents. It is important to note that room air starvation well negatively impact the operation of the heater.

7. If power outages with battery backup or room air starvation occurs during operation of heater, smoke in the house may result. This may trigger smoke detectors if they are installed.

AUTOLITE OPERATION

Your EASYFIRE Pellet Stove is equipped with the Autolite Automatic ignition and operating system.

The AutoLite system is integrated into the stove to allow for automatic start up using a heating element located in the burn pot. This element starts the initial fire required to burn the wood pellets. The system operates on 120VAC power supplied through a separate fuse and runs for five minutes during the initial stove start up. After the five minute period the AutoLite system is deactivated and the stove operates based on the EasyFire digital control system requirements. If the house AC power should quit, the AutoLite system will not be available however, with the optional battery attached the stove can be manually lit and operate on battery power for several days (depending on battery size, refer to the EasyFire installation manual).

The most effective installation of the EasyFire AutoLite Stove is to connect the unit to a thermostat. This can be accomplished using a standard wall thermostat or a remote control thermostat. A remote control thermostat can be purchased from your local dealer and installed in a few minutes. This will allow the stove to start and shut down when there is a call for heat.

If your house power is out the AutoLite system will not be able to start the stove when the thermostat calls for heat. However if the stove is operating when the power goes out the stove will not shut down operating on the backup battery. Your EasyFire will turn down to low when the thermostat calls for shut down and then turn up to the setting on the control panel when the thermostat calls for heat. A true back up heat source!

GENERAL WARNINGS

The EASYFIRE Pellet Stove and Insert has been designed and approved for burning **wood pellet fuel only**. Burning solid fuel in other forms is not permitted and will void all warranties.

NEVER use gasoline, gasoline-type lantern fuels, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the heater while it is in use.

Ashes must be disposed of in a metal container with a tight fitting lid and placed on a noncombustible floor or ground, well away from all fuels, pending final disposal.

This heater, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the **National Electrical Code, ANSI/NFPA 70-2006**.

Provide adequate clearances around air openings into the combustion chamber and adequate accessibility clearance for servicing and proper operation. Never obstruct the front opening of the heater.

The pellet heater must be operated with a power source and will not operate using natural draft. If there is a power failure the heater will shut down. If the 12 volt back-up system is installed, the heater will automatically switch to 12 volt power. An **optional** backup battery is available for the unit which lasts approximately 48 hrs on high and 72 hrs on low. A bigger battery may be purchased if desired for longer durations.

The EasyFire Pellet Heater has been listed by OMNI-Test Laboratories, Inc. to ASTM, U.L.,and EPA Standards.

FUEL SELECTION

Proper fuel selection is important for overall operation. Your stove operates best with 1/4" diameter wood pellets that are no longer than 3/4" long. The pellets should be specifically manufactured for use pellet heaters. Use of fuel non-conforming fuel will cause the stove to operate erratically. Additionally, a low ash content of below 1% is required and will reduce your cleaning and maintenance time. Store pellets in a clean dry area. Do not use pellets that have been damp or have a moisture level above 5%.
The quality of pellet fuel varies from brand to brand. This will affect the efficiency of your heater. We suggest that you try several brands until you find one that gives you a clean efficient burn. Poor quality pellets will burn rich with black soot and ash will accumulate quickly. Quality pellets will burn clean and ash build up will be minimal.

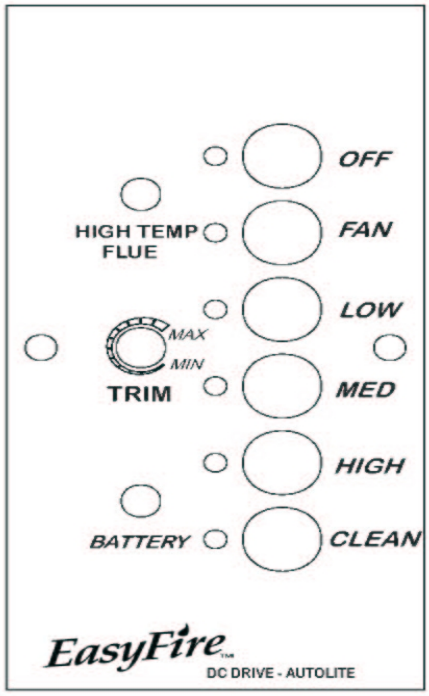
AUTOLITE START-UP AND OPERATION

Refer to Installation and Operation manual provided with the unit for standard match lighting and 12V operations.

1. AutoLite Start-Up:
Prior to operating your AutoLite stove, make sure the hopper is full of wood pellets and the interior components have been installed properly including; burn screen & pot, heat exchange covers, and ash drawer.

IMPORTANT: The Fire Pot must be seated flush and must sit even in the pot tray. Air leaking around the Fire Pot will create a poor burn (**Figure 11**). Light the pellets in Fire Pot using any approved pellet lighter.

Note: Caution must be taken when installing burn pot or operating door not to damage ceramic glass. Do not attempt to operate heater if glass becomes damaged in any way!



2. AutoLite Control Functions: Control functions on the Easyfire are as follows: OFF, FAN, LOW, MEDIUM, HIGH, CLEAN. Here is how each function works:

A. When the Control Button is turned to **FAN**, a timer is activated and you will have about ten (10) minutes to get the pellets lit and reach a minimum temperature. This function is used for match lighting when the AC power is out.

Should the pellets not light in 10 minutes simply turn the button to **OFF** and begin again. This will give you another 10 minutes to get the pellets lit. The reason for the timer function is so that the heater will automatically shut down if the fire goes out. Pellets do not feed in the FAN position.

B. In the **LOW** position, the EASYFIRE will be feeding approximately 1 to 1½ lbs. of pellets per hour and the flame will fluctuate between 1" and 6" in height.

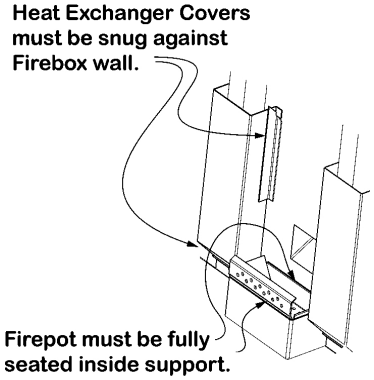


Figure 11

C. In the **MEDIUM** position the EASYFIRE will be feeding approximately three (3) pounds of pellets per hour and the flame will fluctuate between 3" and 8" of fire.

D. In the **HIGH** position the EASYFIRE will be feeding approximately 4+ lbs. per hour and the flame will fluctuate between 3" and a full flame. The fan speed will increase accordingly as the heater automatically adjusts itself based on temperature inside the heater (see G below).

E. The **CLEAN** position is to be used only when the heater is not burning and you wish to clean out the accumulated ash in the front of the fire area. See **CLEAN OUT** section of maintenance instructions.

F. After the heater is running for several hours and you wish to turn it off simply press the button to **OFF**. **The heater will continue running until it cools down and then will automatically shut itself down**.

G. **REMEMBER:** Each feed position will fluctuate because the microprocessor is automatically adjusting the feed and air based on temperature. This means the pellet feed rate and flame height will change accordingly based on quality of pellet and heat loss of dwelling.

3. Starting the Stove: Push a Heat Range button (Low or Medium is best for start up) and turn the thermostat up to *"Call for heat"*. The stove fan will begin to operate along with the ignitor cycle. After about a minute the pellets will begin to fall in the burn pot. After five minutes there will be a fire in the burn pot and the stove will begin to heat up. When the stove reaches start up operating temperature it will then switch to the control panel setting and begin it's automatic operation cycle.

Prior to stove operating on thermostat, confirm proper operation by servicing and adjusting the stove as outlined in the "Installation Guide". When servicing stove, operate with thermostat bypassed as stove will reset to start up mode each time thermostat is activated.

Feed Trim Adjustment

Underneath the control button you will find a small round button that will turn forward and reverse. This button can adjust the feed motor in the LOW operating position. By turning the button clockwise you can increase the feed on LOW and by turning it counterclockwise you can decrease the feed in the LOW position. Factory setting is 1:00 o'clock.

Once the stove is at operating temperature for one hour set the stove on LOW. Adjust the trim button so that average flame is approx. 1-2" above the burn pot. This will set the average feed rate (air/flue) for best operation.

Move this button carefully! It is designed to fine tune your LOW setting in the event you change brands of pellets and/or live at a higher elevation. If this setting is to low the stove may go out during LOW setting operations. If this should happen increase the trim by small amount.

MAINTENANCE PROCEDURE

CAUTION: Moving parts may cause injury, DO NOT operate with rear cover removed.

WARNING: Risk of electrical shock, disconnect all AC/DC power before servicing.

ALWAYS TURN YOUR Heater OFF & LET IT COOL BEFORE CLEANING.

Your EASYFIRE Pellet Heater requires routine maintenance for maximum performance and is mandatory for the warranty to remain in effect.

The following procedures should be studied carefully and performed regularly as indicated:

1. Fly-ash: Some ash will accumulate in the heat exchanger, Fire Pot and flue and should be cleaned out on a regular basis for best efficiency and safety. When the heater is shut down and cold, you should:

a. Open door and remove Heat Exchanger Cover. To remove, simply slide up and out from retaining angle bracket (**Figure 12**). Clean one side at a time. With one slide cover removed, **leave door open** and turn control button to the **"CLEAN"** position. Let heater run until ash in Fire Pot area is vacuumed out by heater fan. Turn off and replace cover. Remove remaining cover and repeat procedure for the other side. The vent pipe should be cleaned out after this procedure. Remove the clean-out port cover **(Figure 13)** and vacuum as required.

b. Remove Fire Pot by lifting up and out, it may be brushed out or vacuumed. Fire Pot should be cleaned weekly and depending on pellet quality daily. Make sure holes in pot are not clogged. The area around and below the pot should be checked every five or six days depending on how many hours a day you are burning your heater and the quality of the pellets being burned. (After a few days you will be able to determine the frequency needed for clean out.)

The important thing to remember is that excessive Fly-ash accumulation will affect the efficiency of the burn.

c. Scrape pellet feed chute with putty knife to remove hardened material on which sawdust can accumulate.

d. The clean-out port cover should be removed and the vent pipe checked every four to six weeks or whenever you utilize the clean-out mode on the control dial.

e. Fly-ash can also accumulate in the vent pipe and termination cap. Inspect exhaust system frequently to maintain free flow of exhaust fumes and fly-ash. The frequency of clean-out depends entirely on the quality of the pellets, so you will have to initially monitor the buildup in the pellet vent pipe.

2. Hopper Clean Out: Vacuum the accumulated saw dust in the hopper weekly. Keep free of debris and foreign material. AN ACCUMULATION OF SAW DUST CAN CAUSE IRREGULAR PELLET FEED. For best results this should be done on a regular basis depending upon how often the heater is used. If you burn the heater all the time you should do this every eight to ten days.

3. Cleaning the Exhaust Fan Blade & Heat Exchanger: The exhaust blower should be checked for excessive Fly-ash buildup. Regular and routine maintenance utilizing the **CLEAN OUT** feature will keep the exhaust blower housing and fan blades clean. This cleaning can only be done when the heater is NOT burning. For best results

run the fan in the **CLEAN OUT** position **with the door open** for approximately one minute or until ash is no longer being picked up by the fan. Remember, you must always check the clean out cap on the tee after utilizing the CLEAN OUT feature.

4. **Keeping the Glass Clean:** If soot deposits accumulate on the glass, clean with window glass cleaner and a paper towel when the glass is cold.

5. **Polishing the Gold and Nickel:** All chrome and gold plating used on the EASYFIRE heater can be cleaned with a soft cloth and non-abrasive cleaner.

6. **Cleaning & Polishing Gold and Nickel Plated Parts:** Gold and Nickel is a soft metal and therefore a fragile surface. Prior to the first burn it is important to use Windex or comparable product and a soft clean cloth to wipe any marks off all gold surfaces or the heat will cause the marks to remain in the surface permanently. Always clean the gold surface when the heater is COOL.

7. **Door glass replacement:** Should the door glass become broken it may be replaced by scraping the sealer from around the outer edge of the glass. Carefully pry glass from door frame then clean all sealer from frame. Obtain a replacement glass from your local dealer and attach glass to door using High Temperature Silicon Sealer (min. 400 ˚ F). Apply sealer to all four corners of the glass and set glass into frame. Apply sealer to mating edge of glass and frame. Allow two hours dry time before installing door onto heater. **Note: Replace with Corning Pyro-Ceramic Glass only. Refer to parts list for specifications.**

Troubleshooting Guide

The following scenarios are provided in order to help you locate a difficulty if the heater performs in a manner which would seem to indicate a malfunction:

I. **Problem:** I loaded the heater for start-up, pressed the button and pellets started but the fire didn't keep going.

Solution: Remember that the timer on start up runs about 10 minutes and if the heater has not heated up enough to deactivate the timer you will have to start over by pressing the button to off and then back to MEDIUM or HIGH.

EASYFIRE will automatically switch to 12 volt provided you have the 12 volt battery option installed.

2. **Problem:** The heater was lit and burning properly, then suddenly it stopped feeding pellets.

Solution: a) The thermostat setting is to low and the has called for the stove to shut down. b) Check pellet supply in hopper. If empty, fill and follow start-up procedure as outlined in the beginning of this manual. c) Occasionally, a foreign object, debris or an excessive amount of saw-dust can enter the feed mechanism and jam the feed chute. If this happens, you must empty the hopper and check the feed chute to see what is causing the jam. Remove any foreign material or object and re-start the heater. **CAUTION:** Keep fingers and hands clear of feed mechanism when heater is on.

3. **Problem:** The fire was burning well and then it began to overfeed pellets and started backing up into the pellet feed chute, smothering the fire.

Solution: When the pellets are overfeeding, it usually means that the air flow has been reduced. Check the Fire Pot air intake holes to be sure they are clear. Check to see if Fire Pot was properly seated in pot tray. Check to see if the manifold may have filled with Fly-ash. If you use a low grade pellet, and clinkers (fused ash and dirt) form in the bottom of the Fire Pot, it will choke the air intake (you might consider changing the brand of pellets to one that burns cleaner). You must let the fire go out before removing and cleaning the Fire Pot.

Never vacuum out the heater when the heater is in operation! The hot ashes can lodge in your vacuum cleaner and cause a fire!

You must clean the manifold regularly in order to insure a good air to fuel ratio, thus allowing the heater to "breathe" properly. You must also check the vent pipe and tee to see that they are not clogged and full of ash.

4. **Problem:** Heater was burning well and then soot began forming on the glass door.

Solution: Black soot forming on the glass door means that the combustion is not right and the heater needs a good clean out. Some brands of pellets burn much richer than others and you might have to change brands of pellets and/or have the air/fuel settings re-adjusted by your dealer. It is normal to have the glass cloud up after several hours of burning but it should wipe off with a good window cleaner. If the glass turns black quickly, then the heater needs a good clean out.

5. **Problem:** We had a power failure and the heater emitted smoke for about five minutes.

Solution: If the heater emits smoke during a power failure, and you have frequent power failures then we suggest you purchase the battery back-up system. If the vent pipe is installed according to these instructions the smoke will syphon out of the pipe in most instances.

6. **Problem:** After several weeks of outstanding perfor-mance, the heater suddenly stopped and the red light under the control button came on. This light is the Hi Temp/Flue Indicator Light.

Solution: The Hi-Temp/Flue Indicator light indicates that Fly-ash has built up in the exhaust system and/or there is a restriction in the exhaust/flue system. Check the pipe system for excessive ash and clogging, particularly the vent cap. Remove the clean out cap on the tee and make sure that ash has not blocked the exhaust air flow. This automatic shut down in case of flue clogging is a safety feature and if the shut down occurs it means you have a problem and should consult a service technician and/or clean your pipe and heater thoroughly. If you feel the Fly-ash build up is excessive, we suggest that you try another brand. In moist climates the pellets and Fly-ash can actually absorb moisture from the air and create creosote and a severe clogging problem. Keep this in mind when you store and handle your pellets. The heater warranty does not cover the quality of the fuels used or the way they may be handled either before or after you've purchased them.

7. **Problem:** I turned off the switch and the heater kept running.

Solution: This is normal. The exhaust blower will keep running until it cools down and then it will automatically turn off. This can vary by the temperature the exhaust has reached and the temperature of the cooling air.

HI TEMP/FLUE AND TRIM INDICATORS:

When the Hi-Temp/Flue indicator light comes on (red lite beneath control button) it means that the flue is obstructed or you have a reverse draft and gases cannot exit properly. Maintenance is required and a thorough cleaning and pipe check must be performed.

TRIM button : Underneath the control button you will find a small round button that will turn forward and reverse. This button can control the feed motor in the LOW position only. By turning the button clockwise you can increase the feed on LOW and by turning it counterclockwise you can decrease the feed in the LOW position.

Move this button carefully! It is designed to fine tune your LOW setting in the event you change brands of pellets and/or live at a higher elevation.

DC OPERATION - BUILDING A FIRE AND START-UP

IMPORTANT (Gold Units Only): Gold is a soft metal and therefore a fragile surface. Prior to the first burn it is important to use Windex™ or comparable product with a soft clean cloth to wipe any marks off all gold surfaces.
If not cleaned prior to first burn, the heat may cause the marks to remain in the surface permanently.
Always clean the gold surface when the heater is COOL.

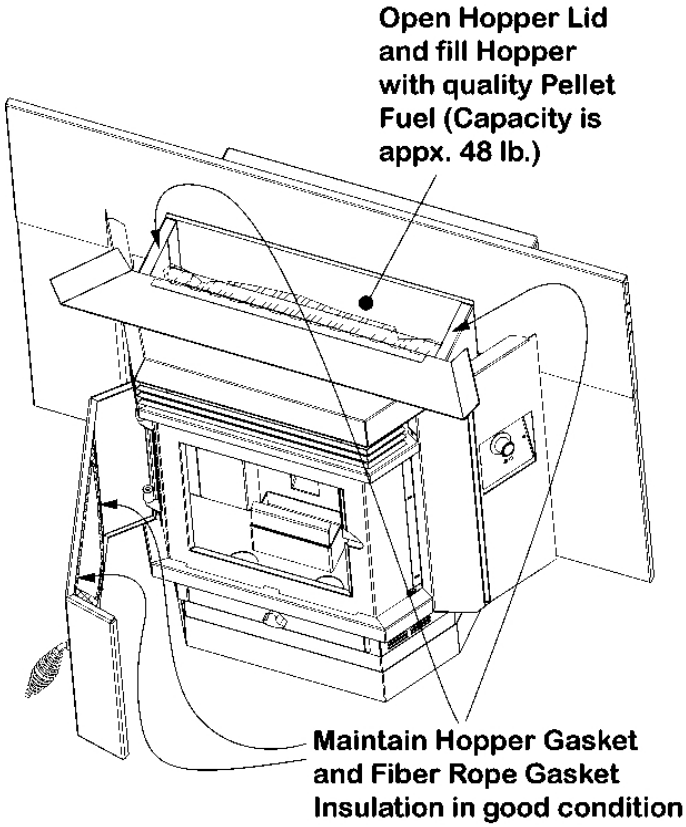
1. Filling the Hopper and Start-Up:
CAUTION: Fuel hopper lid must be closed before operating unit. Maintain hopper seal in good condition.
DO NOT OVERFILL HOPPER! The **EASYFIRE will hold about 35 lbs. to 50 lbs. of pellets depending on hopper height.**

Open the top lid and fill the hopper with pellets (**Figure 9**).

The quality of pellet fuel varies from brand to brand. This will affect the efficiency of your heater. We suggest that you try several brands until you find one that gives you a clean efficient burn. Poor quality pellets will burn rich with black soot and ash will accumulate quickly. Quality pellets will burn clean and ash build up will be minimal.

Make sure hopper lid is fully closed. Open the front door. Fill the Fire Pot with pellet fuel.

IMPORTANT: The Fire Pot must be seated flush and must sit even in the pot tray. Air leaking around the Fire Pot will create a poor burn (**Figure 10)**. Light the pellets in Fire Pot using any approved lighter fluid.


Open Hopper Lid and fill Hopper with quality Pellet Fuel (Capacity is appx. 48 lb.)
Maintain Hopper Gasket and Fiber Rope Gasket Insulation in good condition
Figure 12

Allow pellets to burn for approximately 1 minute, or until pellet ignition has been achieved. ***Close door*** and turn the control knob to the **"FAN"** position. Allow fire to burn for several minutes. When the pellets are well lit, turn the control knob to **"LOW"** for approximately 10 minutes then turn up to **"HI"**. We recommend that you run the heater on "Medium" or "HI" for about 30 minutes in order to get the heat exchanger hot before turning it to "LOW". You will need to burn the heater for a few hours before deciding which setting is best for your particular needs.

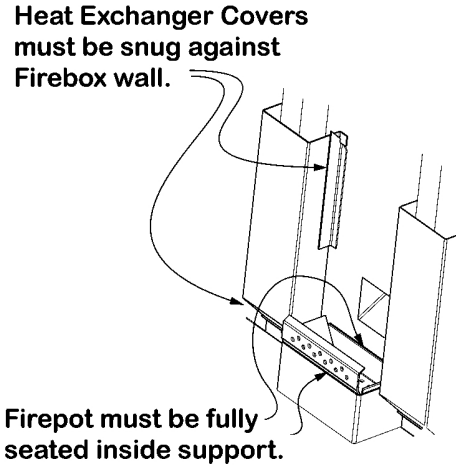


Figure 13

Note: Caution must be taken when installing burn pot or operating door not to damage ceramic glass. Do not attempt to operate heater if glass becomes damaged in any way!

2. Control Functions: Control functions on the Easyfire are as follows: OFF, FAN, LOW, MEDIUM, HIGH, CLEAN. Here is how each function works:

A. When the Control is set to **FAN**, a timer is activated and you will have about ten (10) minutes to get the pellets lit and reach a minimum temperature.

Should the pellets not light in the 10 minutes simply turn the knob to **OFF** and begin again. This will give you another 10 minutes to get the pellets lit. The reason for the timer function is so that the heater will automatically shut down if the fire goes out. Pellets do not feed in the FAN position.

B. In the **LOW** position, the EASYFIRE will be feeding approximately 1 to 1½ lbs. of pellets per hour and the flame will fluctuate between 1" and 6" in height.

C. In the **MEDIUM** position the EASYFIRE will be feeding approximately three (3) pounds of pellets per hour and the flame will fluctuate between 3" and 8" of fire.

D. In the **HIGH** position the EASYFIRE will be feeding approximately 4 lbs. per hour and the flame will fluctuate between 3" and a full flame. The fan speed will increase accordingly as the heater automatically adjusts itself based on temperature inside the heater (see G below).

E. The **CLEAN** position is to be used only when the heater is not burning and you wish to clean out the accumulated ash in the front of the fire area. See **CLEAN OUT** section of maintenance instructions.

F. After the heater is running for several hours and you wish to turn it off simply turn the knob to **OFF**. **The heater will continue running until it cools down and then will automatically shut itself down**.

G. **REMEMBER:** Each feed position will fluctuate because the microprocessor is automatically adjusting the feed and air based on temperature. This means the pellet feed rate and flame height will change accordingly based on quality of pellet and heat loss of dwelling.

MAINTENANCE PROCEDURE

CAUTION: Moving parts may cause injury, DO NOT operate with rear cover removed.

WARNING: Risk of electrical shock, disconnect all power before servicing.

ALWAYS TURN YOUR Heater OFF & LET IT COOL BEFORE CLEANING.

Your EASYFIRE Pellet Heater requires routine maintenance for maximum performance and is mandatory for the warranty to remain in effect.

The following procedures should be studied carefully and performed regularly as indicated:

1. Fly-ash: Some ash will accumulate in the heat exchanger, Fire Pot and flue and should be cleaned out on a regular basis for best efficiency and safety. When the heater is shut down and cold, you should:

a. Open door and remove Heat Exchanger Cover. To remove, simply slide up and out from retaining angle bracket (**Figure 12**). Clean one side at a time. With one slide cover removed, **leave door open** and turn control knob to the **"CLEAN"** position. Let heater run

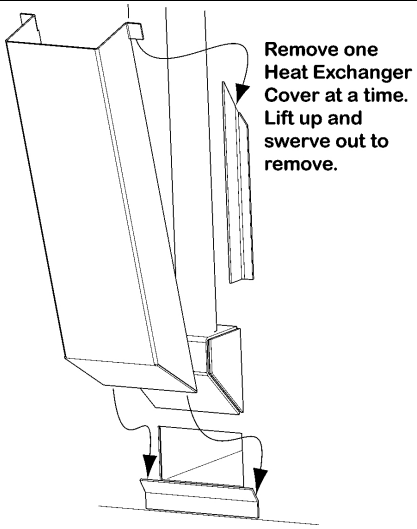


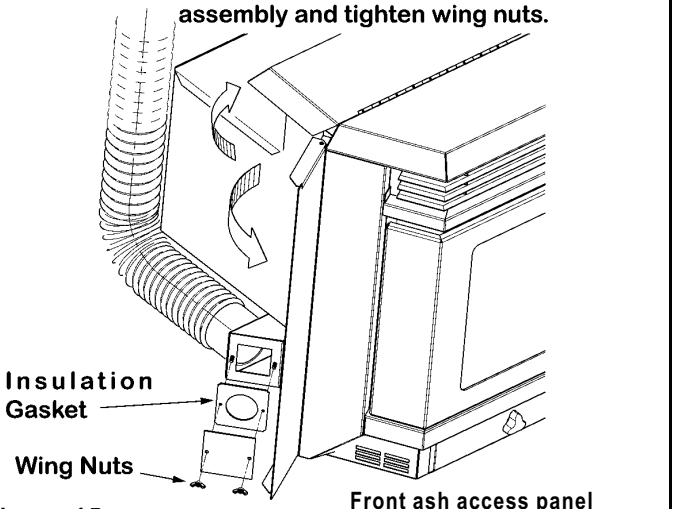
Figure 14

until ash in Fire Pot area is vacuumed out by heater fan. Turn off and replace cover. Remove remaining cover and repeat procedure for the other side. The vent pipe should be cleaned out after this procedure. Remove the clean-out port cover **(Figure 13)** and vacuum as required.

b. Remove Fire Pot by lifting up and out, it may be brushed out or vacuumed. Fire Pot should be cleaned daily. Make sure holes in pot are not clogged. The area around and below the pot should be checked every five or six days depending on how many hours a day you are burning your heater and the quality of the pellets being burned. (After a few days you will be able to determine the frequency needed for clean out.)

The important thing to remember is that excessive Fly-ash accumulation will affect the efficiency of the burn.

c. Scrape pellet feed chute with putty knife to remove hardened material on which sawdust can accumulate.


Open Hopper Door to allow Side Cowl to swing open. Remove the two wing nuts and insulating gasket (replace if necessary).
Vaccuum out ash build-up, replace assembly and tighten wing nuts.
Insulation Gasket
Wing Nuts
Front ash access panel
Figure 15

d. The clean-out port cover should be removed and the vent pipe checked every four to six weeks or whenever you utilize the clean-out mode on the control dial.

e. Fly-ash can also accumulate in the vent pipe and termination cap. Inspect exhaust system frequently to maintain free flow of exhaust fumes and fly-ash. The frequency of clean-out depends entirely on the quality of the pellets, so you will have to initially monitor the buildup in the pellet vent pipe.

2. Hopper Clean Out: Vacuum the accumulated saw dust in the hopper weekly. Keep free of debris and foreign material. AN ACCUMULATION OF SAW DUST CAN CAUSE IRREGULAR PELLET FEED. For best results this should be done on a regular basis depending upon how often the heater is used. If you burn the heater all the time you should do this every eight to ten days.

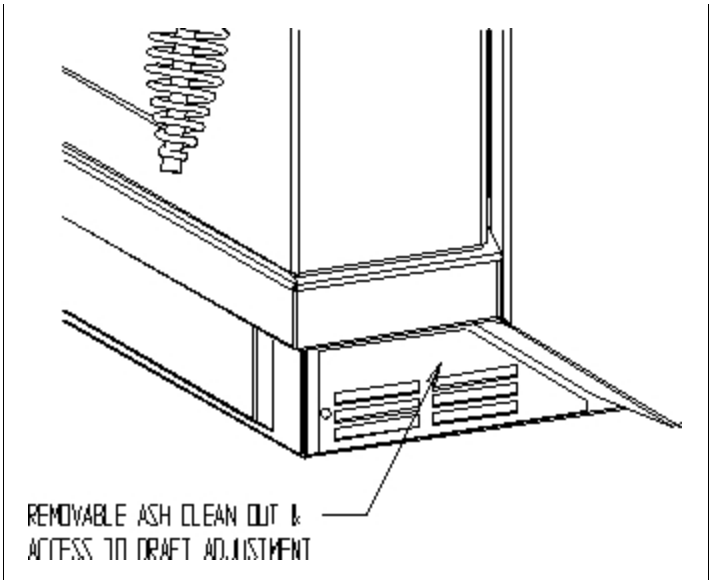


Figure 16 Plenum Clean Out & Draft Adjustment

3. Cleaning the Exhaust Fan Blade & Heat Exchanger: The exhaust blower should be checked for excessive Fly-ash buildup. Regular and routine maintenance utilizing the **CLEAN OUT** feature will keep the exhaust blower housing and fan blades clean. This cleaning can only be done when the heater is NOT burning. For best results run the fan in the **CLEAN OUT** position **with the door open** for approximately one minute or until ash is no longer being picked up by the fan. Remember, you must always check the clean out tee after utilizing the CLEAN OUT feature **(Figure 13)**.

4. Keeping the Glass Clean: If soot deposits accumulate on the glass, clean with window glass cleaner and a paper towel when the glass is cold.

5. Polishing the Gold and Chrome: All chrome and gold plating used on the EASYFIRE heater can be cleaned with a soft cloth and non-abrasive cleaner.

6. Cleaning & Polishing Gold Plated Parts: Gold is a soft metal and therefore a fragile surface. Prior to the first burn it is important to use Windex or comparable product and a soft clean cloth to wipe any marks off all gold surfaces or the heat will cause the marks to remain in the surface permanently. Always clean the gold surface when the heater is COOL.

7. Door glass replacement: Should the door glass become broken it may be replaced by scraping the sealer from around the outer edge of the glass. Carefully pry glass from door frame then clean all sealer from frame. Obtain a replacement glass from your local dealer and attach glass to door using High Temperature Silicon Sealer (min. 400 ˚ F). Apply sealer to all four corners of the glass and set glass into frame. Apply sealer to mating edge of glass and frame. Allow two hours dry time before installing door onto heater. **Note: Replace with Corning Pyro-Ceramic Glass only. Refer to parts list for specifications.**

8. Plenum clean out & draft adjustment: Access to clean under the burn pot is through the plenum clean out plates on right or left side low front **(Figure 16)**. Remove the fastener and plate and vacuum out ash accumulations. Additionally, the draft plate is accessible through this opening and maybe turned with a long standard screw driver clockwise to reduce the draft through the burn pot. This adjustment is made generally only during installation.

Troubleshooting Guide

The following scenarios are provided in order to help you locate a difficulty if the heater performs in a manner which would seem to indicate a malfunction:

I. Problem: I loaded the heater for start-up, lit the fire starter and pellets but the fire didn't keep going.

Solution: Check power cord to see that it is plugged in. Remember that the timer on start up runs about 10 minutes and if the heater has not heated up enough to

deactivate the timer you will have to start over by turning the knob to off and then back to FAN or LOW.

The EASYFIRE will automatically switch to 12 volt backup provided you have the 12 volt option installed.

2. **Problem:** The heater was lit and burning properly, then suddenly it stopped feeding pellets.

   Solution: a) Check pellet supply in hopper. If empty, fill and follow start-up procedure as outlined in the beginning of this manual. b) Occasionally, a foreign object, debris or an excessive amount of sawdust can enter the feed mechanism and jam the feed chute. If this happens, you must empty the hopper and check the feed chute to see what is causing the jam. Remove any foreign material or object and re-start the heater. **CAUTION:** Keep fingers and hands clear of feed mechanism when heater is on.

3. **Problem:** The fire was burning well and then it began to overfeed pellets and started backing up into the pellet feed chute, smothering the fire.

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Never vacuum out the heater when the heater is in operation! The hot ashes can lodge in your vacuum cleaner and cause a fire!

You must clean the manifold regularly in order to insure a good air to fuel ratio, thus allowing the heater to "breathe" properly. You must also check the vent pipe and tee to see that they are not clogged and full of ash.

4. **Problem:** Heater was burning well and then soot began forming on the glass door.

   Solution: Black soot forming on the glass door means that the combustion is not right and the heater needs a good clean out. Some brands of pellets burn much richer than others and you might have to change brands of pellets and/or have the air/fuel settings re-adjusted by your dealer. It is normal to have the glass cloud up after several hours of burning but it should wipe off with a good window cleaner. If the glass turns black quickly, then the heater needs a good clean out.

5. **Problem:** We had a power failure and the heater emitted smoke for about five minutes.

   Solution: If the heater emits smoke during a power failure, and you have frequent power failures then we suggest you purchase the battery back-up system. If the vent pipe is installed according to these instructions the smoke will syphon out of the pipe in most instances.

6. **Problem:** After several weeks of outstanding performance, the heater suddenly stopped and the red light under the control knob came on. This light is the Hi Temp/Flue Indicator Light.

   Solution: The Hi-Temp/Flue Indicator light indicates that Fly-ash has built up in the exhaust system and/or there is a restriction in the exhaust/flue system. Check the pipe system for excessive ash and clogging, particularly the vent cap. Remove the clean out cap on the tee and make sure that ash has not blocked the exhaust air flow. This automatic shut down in case of flue clogging is a safety feature and if the shut down occurs it means you have a problem and should consult a service technician and/or clean your pipe and heater thoroughly. If you feel the Fly-ash build up is excessive, we suggest that you try another brand. In moist climates the pellets and Fly-ash can actually absorb moisture from the air and create creosote and a severe clogging problem. Keep this in mind when you store and handle your pellets. The heater warranty does not cover the quality of the fuels used or the way they may be handled either before or after you've purchased them.

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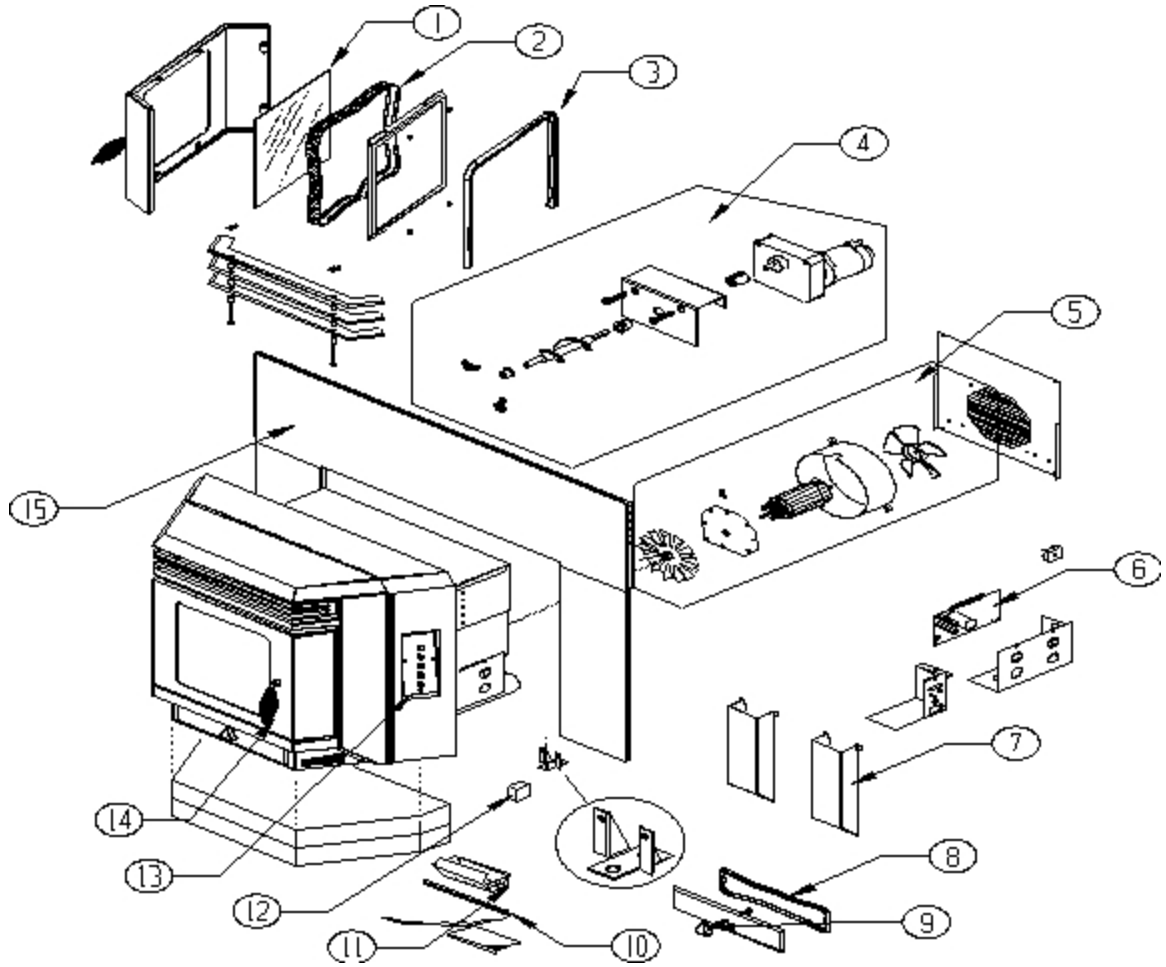
When the Hi-Temp/Flue indicator light comes on (red lite beneath control knob) it means that the flue is obstructed or you have a reverse draft and gases cannot exit properly. Maintenance is required and a thorough cleaning and pipe check must be performed.

TRIM button : Underneath the control knob you will find a small round button that will turn forward and reverse. This button can control the feed motor in the LOW position only. By turning the button clockwise you can increase the feed on LOW and by turning it counterclockwise you can decrease the feed in the LOW position.

Move this button carefully! It is designed to fine tune your LOW setting in the event you change brands of pellets and/or live at a higher elevation.



ITEM No.	PART NUMBER	DESCRIPTION
1	110429	DOOR FRONT GLASS (Ceramic glass 11"x11 3/4"x5mm)
2	100119	GLASS FIBER GASKET
3	100125	DOOR FIBER ROPE GASKET
4	300536	FEED AUGER SYSTEM V3
5	300106	COMBUSTION BLOWER ASSEMBLY
6	120114	CONTROL BOARD V2.1
6A	110080	MAIN FUSE - 1 AMP
6B	110510	AUTOLITE FUSE - 5 AMP
7	200549	HEAT EXCHANGE COVER
8	110456	ASH DRAWER FIBER ROPE GASKET
9	110451	ASH DRAWER KNOB
10	120117	IGNITOR-200W
11	300512	BURN POT AL V2
12	120120	IGNITOR RELAY
13	120118	PUSH BUTTON SWITCH V2.1
14	110058	HANDLE ASSEMBLY
15	10407	SURROUND ASSEMBLY

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P/N 140706r3 03/08